

SECRET

C100

ZE191

REF: 00527 03 NOV 1962

TO: DIRECTOR

25X1

ACTION: CSA (1-2-3-4-5-6-7-8-9-10)

INFO: S/C (11)

PRIORITY

IN 54389

TOR: 0121Z 03 NOV 1962

25X1  
25X1 to PRITY

INFO

CITE

25X1

1. REFERENCE YOUR TELEPHONE CONVERSATION CONCERNING J-58 WINDMILLING RPM PROBLEM.

2. DURING THE ATTEMPTED RESTART OF J-58 AT 36,000 FEET AND M 1.2 NOTHING HAPPENED AND THE AIRCRAFT WAS DECELERATED FROM 1.2 TO .88 AND ALTITUDE REDUCED TO 26,000 FEET. DURING THIS PERIOD 6 PROCEDURE RESTARTS WERE ATTEMPTED BEFORE A RELIGHT OCCURRED AT 26,000.

3. DURING THIS TIME IT WAS NOTED THAT THE ENGINE RPM WAS 2,000 BELOW THE RATING GIVEN BY F&W. THIS REDUCES OUTPUT OF HYDRAULIC PUMPS AND ELECTRIC GENERATORS TO THE POINT OF BEING INOPERATIVE AND WILL PROBABLY MEAN THE INSTALLATION OF AN AIR TURBINE GENERATOR AND PUMP TO ASSURE SERVICES SHOULD BOTH ENGINES BLOW OUT. THIS IS A VERY POSSIBLE OCCURRENCE AT FULL MACH NUMBER AND ALTITUDE CRUISE.

4. IN ADDITION THERE IS NO WAY OF KNOWING WHETHER OR NOT THE F&W SYSTEM IS WORKING AND IT IS DIFFICULT TO CONDEMN THE ENGINE FOR

here  
no  
in New

yes-  
prob.  
CIS  
trouble

SECRET

GROUP 1  
Excluded from automatic  
downgrading and  
declassification

25X1

S E C R E T

[REDACTED] (IN 54539)

PAGE TWO

25X1

NOT STARTING WHEN THE PROBLEM MAY BE IGNITION FAILURE. ACCORDINGLY  
 WITH [REDACTED] CONCURRENCE LAC IS DESIGNING A MANUAL TEB SYSTEM  
 TO ASSURE IGNITION. yes

5. AS A RESULT OF THE ABOVE RESTART EXPERIENCE P&W HAS COME  
 UP WITH A MODIFIED RESTART SPEED-ALTITUDE ENVELOPE WHICH IS THE  
NEXT THING TO UNACCEPTABLE. THE PROBLEM IS STILL OPEN AS FAR AS I  
 CAN SEE AT THIS TIME.

END OF MESSAGE

~~no restart or  
 relite not involved  
 in this curve~~  
 windm. N  
 curve - yes

if restart  
 envelope  
 valid 113

Note: Relites & Nr are two  
 separate problems,  
 don't confuse them!

Relite =  $f(P_b, T_f, T_a, (CIS \text{ spring}) \text{ etc.})$  not  $f(Nr)$

$Nr = f(\text{Turb. } W_a \propto M \text{ or } P_{am} \frac{P_{ez}}{P_{om}} \text{ \& eng. charact.})$

S E C R E T